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REMINISCENCES OF PROFESSOR HUXLEY.

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THERE is no intention in this paper of giving either a biographical notice of Professor Huxley or an estimate of his position in science, philosophy or literature. Both have been done over and over again in numerous journals and magazines that have appeared since his death. The main facts of his career, and his great contributions to human knowledge, must be perfectly familiar to the readers of this REVIEW. I have, however, in response to an appeal from the Editor, put down a few personal reminiscences, gathered during a friendship of nearly forty years, which may throw some additional light upon the character and private life of one in whom all English speaking people must take a deep interest. In doing this I fear I have been obliged to introduce myself to the notice of the reader more frequently than I should wish, but this seems inevitable in an article of this nature, and I trust will be forgiven for the sake of the main subject.

When Huxley returned to London from his four years' surveying cruise in the "Rattlesnake," under the command of Captain Owen Stanley, one of the first men of kindred pursuits who took him by the hand was George Burk, then surgeon to the Seaman's Hospital, the "Dreadnaught," lying in the Thames off Greenwich. About this time Burk removed from Greenwich to Harley street, and although doing some practice as a surgeon, and even attaining to the position of President of the Royal College of Surgeons, his main occupation and chief pleasure were in purely scientific pursuits, and his great interest in and familiarity with microscopic manipulation, especially as applied to the structure of lowly organized animal forms—then rather in its infancy—was a strong

bond of sympathy with Huxley. In 1852-4 they translated and edited jointly K  lliker's *Manual of Human Histology*, published by the Sydenham Society. This fact shows that Huxley had already made himself proficient in the German language, as he had also, while on board the "Rattlesnake," taught himself Italian, with the main object of being able to read Dante in the original, so wide were his interests and sympathies.

It was through Burk that I first became acquainted with Huxley. This was shortly before his marriage, the incidents connected with which were of a somewhat romantic character. When the "Rattlesnake" was in Sydney Harbor the officers were invited to a ball, and young Huxley among the number. There for the first time he met his future wife, whose parents resided at Sydney. A few days after they were engaged, and the ship sailed for the Tower Straits to complete the survey of the north coast of Australia, all communication being cut off for months at a time, and then she returned direct to England. After that brief acquaintance (not, I believe, longer than a fortnight), it was seven years before the lovers saw one another. At the end of this time, on Huxley's appointment to the School of Mines, he was in a position to claim his bride, and welcome her to their first home in St. John's Wood. He often used to say that to engage the affections of a young girl under these circumstances, knowing that he would have to leave her for an indefinite time, and with only the remotest prospect of ever marrying, was an act most strongly to be reprobated, and he often held it out as a warning to his children never to do anything of the kind, and yet they all married young and all happily. Huxley's love at first sight and constancy during those seven long years of separation were richly rewarded, for it is impossible to imagine a pair more thoroughly suited. I cannot help relating a little incident which clings to my memory, though it happened full thirty years ago. A rather cynical and vulgar-minded acquaintance of mine said to me one day: "I saw Huxley in a box at the Drury Lane Theatre last night. Can you tell me who was the lady with him?" After a few words of description I said: "Oh, that was Mrs. Huxley." "Indeed," he said, "I thought it could not be his wife, he was so very attentive to her all the evening." As intimate friends knew, they had at first many household troubles and cares to contend with, a large family of young children,

much ill health, and not very abundant means, but through it all Huxley's patience and sweetness were admirable. The fierce and redoubtable antagonist in the battlefield of scientific or theological controversy was all love and gentleness at home.

The fact that he had sailed under Captain Owen Stanley, who died when in command of the "Rattlesnake" in Australia, brought him into very friendly communication with the Captain's brother, the late dean of Westminster, *the* Dean, as many of us always used to, and still do, call him, just as the first Duke of Wellington was always called *the* Duke. Notwithstanding the great differences of their interests and pursuits, they remained intimate until Stanley's death, and to be with them when they met was a rare occasion of hearing much delightful talk and many displays of playful wit. If I had the faculty of a Boswell, I should have much work narrating of many charming little dinner parties at one or the other of our houses, when Huxley and the Dean were the principal talkers. I remember a characteristic *rencontre* between them which took place on one of the ballot nights at the Athenæum. A well-known popular preacher of the Scotch Presbyterian Church, who had made himself famous by predictions of the speedy coming of the end of the world, was up for election. I was standing by Huxley when the Dean, coming straight from the ballot boxes, turned towards us. "Well," said Huxley, "have you been voting for C?" "Yes, indeed, I have," replied the Dean. "Oh, I thought the priests were always opposed to the prophets," said Huxley. "Ah?" replied the Dean, with that well-known twinkle in his eye, and the sweetest of smiles. "But you see, I do not believe in his prophecies, and some people say I am not much of a priest."

Speaking of Dean Stanley, I am reminded of a very interesting meeting which took place at my house, in Lincoln's Inn Fields, on November 26, 1878, just after his return from his visit to the United States. He had a great wish to see Darwin, who was one of the few remarkable men of the age with whom he was not personally acquainted. They moved in totally different circles, Darwin having, owing to ill-health, long given up going into general society. He had, however, a great admiration for the Dean's liberality, courage, and character, and was glad of the opportunity of meeting him. So we arranged that they should both come to lunch. They were mutually pleased with

each other, although they had not many subjects in common to talk about. Darwin was no theologian and Stanley did not take the slightest interest in nor had he any knowledge of any branch of natural history, although his father was eminent as an ornithologist and President of the Linnean Society. I once took him over the Geological Gardens. His remarks were, of course, original and amusing, but the sole interest he appeared to find in any of the animals was in tracing some human trait, either in appearance or character. The Dean enjoyed intensely the broader aspects and beauties of nature as shown in scenery, but the details of animal and plant life were entirely outside his sympathies.

Another introduction consequent upon Huxley's voyage in the "Rattlesnake" was to Dr. Vaughan, then Headmaster of Harrow. Mrs. Vaughan was Captain Owen Stanley's sister, and soon after Huxley's return he was asked to dine and pass the night at Harrow. This was a new experience. The young rough sailor surgeon was at first quite out of his element in the refined, scholastic, ecclesiastical society he found himself plunged into. Among those who were present was an Oxford don (the first of the class Huxley had ever met), whose great learning, suave manner and air of superiority during dinner, greatly alarmed and repelled him, as he afterwards confessed. Bed time came, and both stood upon the staircase, lighted candle in hand. They looked straight into each other's faces, and the don addressed a few words directly to Huxley for the first time. He was much interested, and an animated conversation ensued. Instead of bidding each other "good night" they adjourned to a neighboring room, sat down and talked till two o'clock in the morning. This was the beginning of Huxley's life-long friendship with the late Master of Balliol, Dr. Jowett.

It may surprise some people to know, but that he has told it himself in an exceedingly interesting and delightfully written short autobiographical sketch prefixed to his works, that Huxley was not in early life anything of what is commonly called a naturalist. Most men who have distinguished themselves in the field of zoölogy or paleontology have loved the subject from their early boyhood, a love generally shown by the formation of collections of specimens. Huxley never did anything of the kind. His early tastes were for literature and for engineering. He attrib-

uted the awakening of his interest in anatomy to Professor Wharton Jones' lectures at Charing Cross Hospital, where he received his medical education. Wharton Jones was one of the pioneers of microscopic research in this country; a great enthusiast in his work, but a man of modest and exceedingly retiring disposition, and very little known outside a small circle of friends. He published several papers on histology in the *Philosophical Transactions*, and made a specialty of ophthalmic surgery. Perhaps of his various contributions to the advancement of his subject, not the least important was that of making a scientific anatomist of Huxley.

The next man who had a real influence upon Huxley's professional career, was Sir John Richardson, a very keen zoölogist, at that time Principal Medical Officer at Haslar Hospital, near Portsmouth, where the naval assistant surgeons first proceeded on appointment. It was through him, that Huxley was appointed to the surveying ship, the "Rattlesnake." He was not naturalist to the expedition, as has been sometimes said, indeed he would at this time have been hardly qualified for such a post, for although he had published a short paper on the microscopic structure of the human hair, he had as yet done no zoölogical work. Moreover, the ship did carry an accredited naturalist, John Macgillivray, who published a "Narrative of the Voyage of H. M. S. 'Rattlesnake,' during 1846-'50," in two volumes [1852].

Huxley's official duties were only with the health of the crew, and as he had a surgeon above him, he had plenty of leisure at his command. How this leisure was employed in laying the foundation upon which his future distinction rested has often been told. He had his microscope with him, and he threw himself with the greatest ardour into the investigation of the structure of the lowly organized, but beautiful, forms of animal life which abounded in the seas through which the ship sailed, and which the surveying operations in which she was engaged gave ample opportunities for observing under the most favorable conditions. This was almost a new field of research. He became fascinated with it, and his success in its pursuit was the main cause of his adopting zoölogy as the principal subject to engage his energies during the rest of his life.

As said before, Huxley, unlike many other zoölogists, was never a collector, and had not the slightest tincture of the spirit

of a museum curator. He cared for a specimen according to the facilities it afforded for investigation. He cut it up, got all the knowledge he could out of it, and threw it away. I believe he never made a preparation of any kind, and he cared little for directions sealed down in bottles.

When, in 1862, he was appointed to the Hunterian Professorship at the College of Surgeons, he took for the subject of several yearly courses of lectures, the anatomy of the vertebrata, beginning with the primates, and as the subject was then rather new to him, and as it was a rule with him never to make a statement in a lecture that was not founded upon his own actual observation, he set to work to make a series of original dissections of all the forms he treated of. These were carried on in the workroom at the top of the college, and mostly in the evenings, after his daily occupation at Jermyn Street (The School of Mines, as it was then called) was over, an arrangement which my residence in the college buildings enabled me to make for him. These rooms contained a large store of material, entire or partially dissected animals preserved in spirit, which unlike those mounted in the museum, were available for further investigation in any direction, and these, supplemented occasionally by fresh subjects from the zoölogical gardens, formed the foundation of the lectures, afterwards condensed into the volume on the Anatomy of Vertebrated Animals, published in 1871. On these evenings it was always my privilege to be with him, and to assist in the work in which he was engaged. In dissecting, as in everything else, he was a very rapid worker, going straight to the point he wished to ascertain with a firm and steady hand, never diverted into side issues, nor wasting any time in unnecessary polishing up for the sake of appearances; the very opposite in fact to what is commonly known as "finikin." His great facility for bold and dashing sketching came in most usefully in this work, the notes he made being largely helped out by illustrations. He might have been a great artist, some of his anatomical sketches reminding me much of Sir Charles Bell's, but he never had time to cultivate his faculties in this direction and I believe never attempted any finished work. His power of drawing on the black board during the lectures was of great assistance to him and to his audience, and his outdoor sketches made during some of his travels, as in Egypt, though slight were full of artistic feeling. His genius was also

conspicuously shown by the clever drawings, often full of playful fancy, which covered the paper that happened to be lying before him when sitting at a council or committee meeting. On such occasions his hand was rarely idle.

It is very singular that, although, as admitted by all who heard him, he was one of the clearest and most eloquent of scientific lecturers of his time, he always disliked lecturing, and the nervousness from which he suffered in his early days was never entirely overcome, however little apparent it might be to his audience. After his first public lecture at the Royal Institution he received an anonymous letter, telling him that he had better not try anything of the kind again, as whatever he was fit for, it was certainly not giving lectures! Instead of being discouraged, he characteristically set to work to mend whatever faults he had of style and manner, with what success is well known. Nevertheless, he often told me of the awful feeling of alarm which always came over him on entering the door of the lecture room of the Royal Institution, or even the College of Surgeons, where the subject was most familiar and the audience entirely sympathetic. He had a feeling that he must break down before the lecture was over, and it was only by recalling to his memory the number of times he had lectured without anything of the kind happening, and then drawing conclusions as to the improbability of its occurring now, that he was able to brace himself up to the effort of beginning his discourse. When once fairly away on his subject all such apprehensions were at an end. Such experiences are, of course, very common, but they were probably aggravated greatly in Huxley's case by the ill health, that miserable, hypochondriacal dyspepsia which, as he says himself, was his constant companion for the last half century of his life. Bearing in mind the serious inroad this made in the amount of time available for active employment, it is marvellous to think of the quantity he was able to accomplish. When the time comes for forming a just estimate of the value of his scientific work, and if quality as well as quantity be fairly taken into account, it will without doubt bear comparison with, if it will not exceed, that of any of his contemporaries.

If, instead of taking up medicine and afterwards science as a profession, he had gone to the bar, he must infallibly have achieved the highest measure of success. As an advocate he

could scarcely have been surpassed. His clear, penetrating insight into the essentials of an intricate question, the rapidity with which he swept aside all that was irrelevant, and the forcible way in which he could state the arguments for his own side of a case, and his brilliant power of repartee, would have been irresistible in a court of justice. He was also free from a quality which paralyzes the effective action of many men of great mental capacity, the faculty of seeing something at least of both sides of a case at the same time. When he took up a cause he took it up in thorough earnest, and it must be admitted that there was then very little chance of his feeling any sympathy for the other side. He had some strong prejudices against doctrines, against institutions, and against individuals, and as his nature was absolutely honest and truthful, he never cared to conceal them. On the other hand, no man was more loyal to the causes he approved of or the people he liked. He could always be relied upon to carry out to the uttermost of his power anything he had undertaken to do. To the younger workers in his own fields of research nothing could exceed his generous assistance, sympathy and encouragement. These qualities were, above all others, the main causes of the devoted attachment he won from everyone who was brought much into personal contact with him.

In one of the recent biographical notices which have appeared of Huxley it is said that "no man of more reverent religious feeling ever trod this earth." This statement has much of truth in it. If the term "religious" be limited to acceptance of the formularies of one of the current creeds of the world, it cannot be applied to Huxley, but no one could be intimate with him without feeling that he possessed a deep reverence for "whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report," and an abhorrence of all that is the reverse of these, and that, although he found difficulty in expressing it in definite words, he had a pervading sense of adoration of the infinite, very much akin to the highest religion.

W. H. FLOWER.